SEMINOLE COUNTY GOVERNMENT AGENDA MEMORANDUM

SUBJECT: Natural Lands Resolution of Uses

DEPARTMENT: Leisure Services **DIVISION:** Natural Lands

AUTHORIZED BY: Joe Abel CONTACT: Lori Hartsock EXT: 7291

MOTION/RECOMMENDATION:

Approve and authorize the Chairman to execute the Natural Lands Resolution of Uses as directed in Part 4, Chapter 190 of the Seminole County Code.

County-wide Jim Duby

BACKGROUND:

Per Part 4, Chapter 190 of the Seminole County Code, the Board of County Commissioners shall set via Resolution approved uses for Natural Lands. The uses for Geneva, Econ River and Chuluota Wilderness Areas were approved through Resolution 98-R-50. Since that time Lake Jesup, Lake Proctor and Black Hammock Wilderness Areas have come on line and Black Bear has been prepared for public access. The purpose of this Resolution is to, as the code states, "promulgate" a list of approved uses for each Natural Land site.

STAFF RECOMMENDATION:

Staff recommends to approve and authorize the Chairman to execute the Natural Lands Resolution of Uses.

ATTACHMENTS:

- 1. Resolution
- Black Hammock Wilderness Area Brochure
- Chuluota Wilderness Area Brochure
- 4. Econ River Wilderness Area Brochure
- 5. Geneva Wilderness Area Brochure
- 6. Lake Jesup Wilderness Area Brochure
- 7. Lake Proctor Wilderness Area Brochure
- 8. Black Bear Wilderness Area Brochure

Additionally Reviewed By:

County Attorney Review (Ann Colby)



COUNTY ATTORNEY'S OFFICE MEMORANDUM

To:

Jim Duby, Manager

Natural Lands Division

Cc:

Joe Abel, Director

Leisure Services Department

From:

Ann Colby, Assistant County Attorney Ext. 7254

Date:

September 17, 2007

Subject:

Proposed Resolution - Natural Lands

Attached is the second revised proposed resolution adding a definition for "biking" as requested.

Please give me a call if you have any questions or additional revisions.

AEC/ijr

Attachment:

Resolution (Draft)

THE FOLLOWING RESOLUTION WAS ADOPTED BY THE BOARD OF COUNTY COMMISSIONERS OF SEMINOLE COUNTY, FLORIDA, AT THEIR REGULARLY SCHEDULED MEETING ON THE DAY OF ________, 2007.

WHEREAS, Section 190.154, Seminole County Code, requires that the County shall, by resolution, promulgate a list of acceptable uses for each Natural Lands parcel; and

WHEREAS, acceptable uses were promulgated for the Geneva, Econ River, and Chuluota Wilderness Areas in Resolution No. 98-R-50; and

WHEREAS, the uses for the Geneva, Econ River, and Chuluota Wilderness Areas need to be modified to further define acceptable uses for those areas; and

WHEREAS, the Lake Proctor Lake Jesup, Black Bear, Black Hammock Wilderness Areas, and Little Big Econ Canoe Launch are Natural Lands parcels which are either open to the public or ready for public access,

NOW, THEREFORE, BE IT RESOLVED by the Board Of County Commissioners of Seminole County, Florida:

- 1. That Resolution No. 98-R-50 is repealed in its entirety.
- 2. That the following uses are approved by the Board of County Communication as acceptable uses of their respective Natural Lands parcels:
- and weekend camping (by permit) from Friday noon to Sunday noon.
- b. **Econ River Wilderness Area:** Hiking, biking, and local equestrian.

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Pac	re 1 of	2

c.	Chuluota	Wilderness	Area:	Hiking,	biking,	and
equestrian.						
đ.	Lake Proc	ctor Wildern	ness Area:	Hiking,	biking,	and
equestrian.						
e,	Lake Jest	up Wilderne	ss Area:	Hiking,	biking,	and
equestrian.						Reference :
f.	Black Ham	mock Wilder	ness Area:	Hiking,	biking,	and
local equestria	n (boardwal	ks excluded).			
g.	Black Bea	r Wilderness	Area: Hi	king, biki	ng and 1	ocal
equestrian.						
h.	Little Bi	g Econ Lau	n ch: Hiki	ng, bikin	g, and c	anoe
launch.						
4. For	the purpos	es of this	Resolution,	"local e	questrian	" is
defined as ri	de-in acc	ess only	with no l	norse tra	iler par	king
available.	,					
5. For	the purpo	ses of this	s Resoluti	on, "biki	ng" shall	. be
defined as non-	160	**************************************	only.			
ADOPTED th	nis	day of		_, 2007.		
ATTEST			BOARD OF C			
MARYANNE MÖRSE		By:	CARLTON HE	MIEV Chai	**************************************	
Clerk to the Boa	ard of		CARLIUN HE	wher, Chal	Tillali	
County Commission						

AEC:jjr 8/27/07; 8/31/07; 9/17/07 P:\Users\jroyal\Resolutions\Wilderness Areas.doc

Seminole County, Florida.

Date:



PINE FLATWOODS

This habitat is characterized by its tall slash (Pinus elliottii) and longleaf pines, and an understory dominated by Saw Palmetto (Serenoa repens). Other trees present include Scrub Oaks such as Myrtle and Chapman, and shrubs such as Shiny Lyonia (Lyonia lucida) and Wild Blue Berry. The ground cover may include Wire Grass (Aristida berychiana), Golden Aster and Vanilla Plant(Carphephorus odoratissma). All these provide food and shelter for wildlife such as the Hispid Cotton Rat (Sigmodon hispidus), Red-tailed Hawk and Diamondback Rattlesnake. The central part of the BHWA is the best place to view this habitat type.

SAND PINE SCRUB

Offen referred to as Florida's desert, this xeric (dry) habitat exists on sandy well-drained soils of relic dune lines deposited by ancient tides. Today this community is characterized by species such as Sand Pine (Pinus clausa), Sand Live Oak, Rusty Lyonia and Rosemary (Ceratiola ericoides). These plants and the wildlife as well, must adapt to a hot dry environment where water is scarce and rain soaks through the soil rapidly. The east portion of the Black Hammock Wilderness Area is the best place to view this rare plant community. Wildlife you may observe in this area includes the Eastern Hognose Snake, Southern Fence Lizard (Sceloporus undulatus) and Towhee Finch.

Fire plays a key role in the regeneration of this plant community. Historically this habitat would only sustain fire every 30 to 60 years under extreme hot, dry and windy conditions. These very intense fires would burn the entire canopy and ground cover and restart the process of succession from the ground up. Many threatened and endangered species of wildlife such as the GopherTortoise, Scrub jay (Aphelocoma coerulescens) and Florida mouse (Podomys floridanus), adapted to these periodic setbacks and can't survive in the mature system that results from lack of fire. Restoration of the Sand Pine Scrub on this site may include the reintroduction of fire and a timber harvest of the mature Sand Pines.



MIXED HARDWOOD SWAMP

Bald Cypress, Black Gum (Nyssa sylvatica) and Red Maple Trees form a dense canopy that creates a shaded, cool microclimate for a diverse assemblage of wildlife. Among the ground cover of ferns and rotting logs you might observe Slimy Salamanders and Broad-headed Skinks (Eumeces laticeps), while from the canopy you might be greeted by the call of a Red-shouldered Hawk. These swamps serve as important filters and flood storage areas for water making its way to Lake Jesup.

HYDRIC HAMMOCK

This habitat often exists in association with hardwood swamps, forming a transition to higher upland habitats or on areas of slightly higher elevation in broad flood plains. Soil is mostly level and poorly drained and very rich in organic composition. Some trees you would expect to find in this habitat include: Cabbage Palm, Hackberry, Live Oak, Water Oak, and Sweet Gum. In the shrub layer you may see Needle Palm, Wax Myrtle and Wild Azalea. Ground cover could include several ferns, and vines such as Cinnamon Fern, Poison Ivy, Virginia Creeper, and Trumpet Vine. Wildlife which frequent this habitat includes the Barred Owl, Eastern Mud Snake and Luna Moth.

BAYHEAD SWAMP

A few isolated examples of this plant community, dominated by a variety of Bay Trees, can be found in low areas on the eastern portion of this site. Bayheads are generally associated with low spots in or adjacent to Pine Flatwoods. Sweet bay (Magnolia virginiana), Loblolly Bay and Pond Pines compose a canopy that provides shade for understory species such as Button Bush and Wax Myrtle (Myrica cerifera). The ground is covered by a variety of ferns, such as Royal and Netted Chain Fern and other species like Lizard's Tail. Wildlife observed in this habitat includes the Cotton Mouse (Peromyscus gossypinus), Slimy Salamander and Red-eyed Vireo.

Resource Based Recreation:

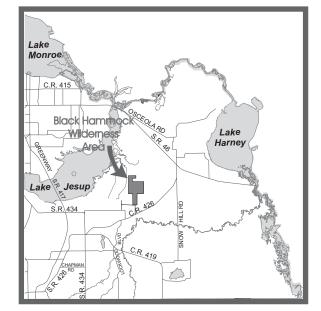


The 700 acre Black Hammock Wilderness Area is located on the east side of Seminole County, east of Lake Jesup. You can find it by taking SR 46 east from Sanford to CR 426, turn south (right) and travel to Barr Street and turn left into the parking area. This is a joint parking area for the Little Big Econ State Forest and Seminole County's Cochron Trail which traverses through the Wilderness Area.

This site's variety of habitats and beautiful trail system is sure to make it a popular destination for local equestrians (no trailer parking), mountain bikers, hikers and other outdoor enthusiasts. Remember that all plants and animals are protected and to increase your chances of viewing them, please be quiet and keep pets on a leash. Be courteous to other users and pack out any trash/waste you bring in.

This site was purchased through the Seminole County Natural Lands Program which was put in place in 1990 by the Citizens and Board of County Commissioners through recognition of the role conservation and natural resources play in promoting and protecting a quality community.

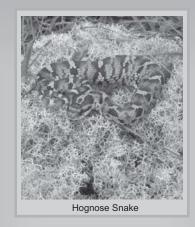
Vicinity Map



For More Information Contact:
Seminole County Natural Lands Program
407 349-3048
Or visit the Seminole County website at:
Www.seminolecountyfl.gov/natland

cominole County

Natural Lands Program





Black Hammock Wilderness Area

BLACK HAMMOCK WILDERNESS AREA Management Plan

The Black Hammock Wilderness Area is a 700 acre wooded site located in east Seminole County, on the southeast side of Lake Jesup. A joint purchase with the St. Johns Water Management District, this land was acquired as part of a comprehensive effort to preserve significant habitat along the shores of Lake Jesup. A walk on the approximately 4.5 miles of trails will take you through habitats such as Hydric Hammock, Mixed Hardwood Swamp, Pine Flatwoods, and Sand Pine Scrub. Wildlife observed on this site includes the Barred Owl, White-tailed deer, Bobcat and Eastern Coral Snake.

MANAGEMENT OBJECTIVES

Resource Management

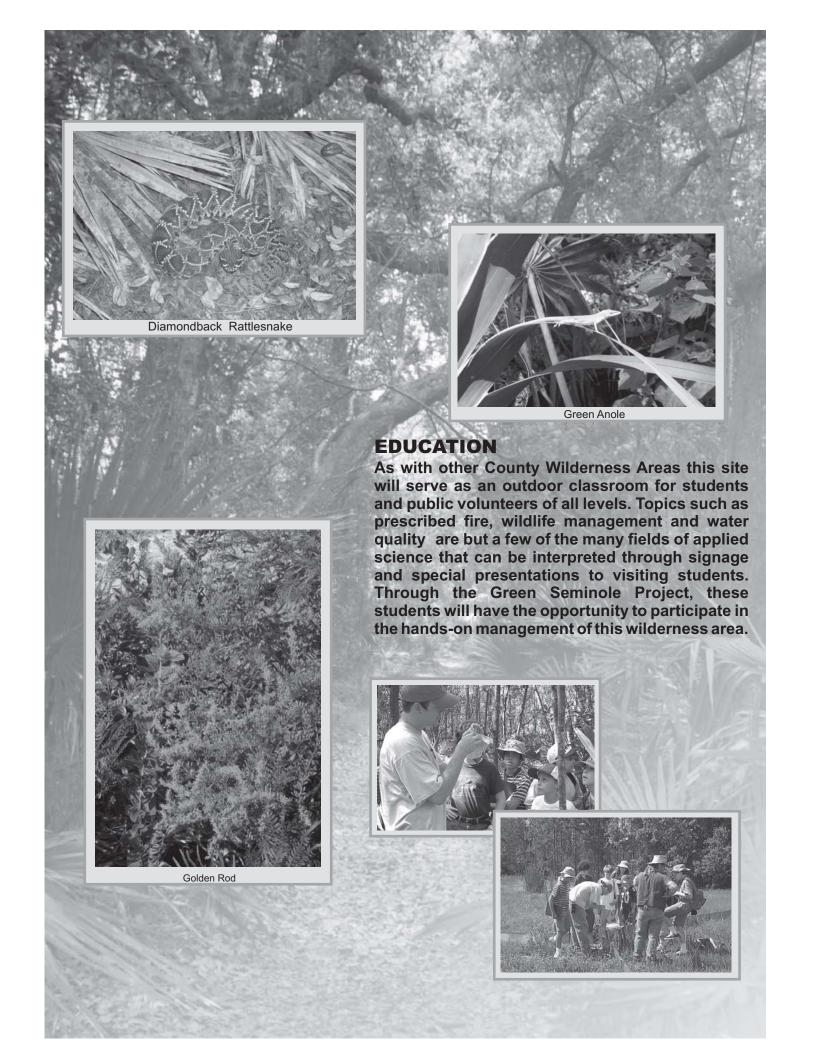
Promote and enhance bio-diversity through a variety of techniques.

Prescribed Burning: Reduces fuel loads and is needed to maintain the existing natural community. Many of Florida's plant communities depend on fire to maintain diversity by opening the canopy and promoting seed germination.

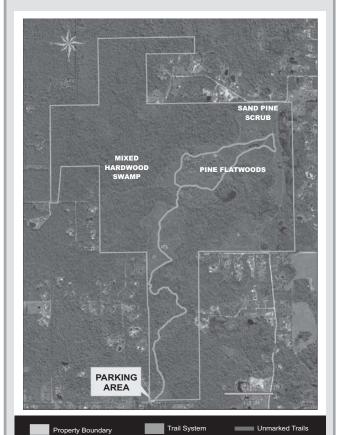
Restoration: Restoration on this site will focus on the reintroduction of fire to restore the flatwoods, and sand pine scrub habitats. The latter may require other methods such as mechanical manipulation due to the intense nature of fire in this habitat and the close proximity of residential structures. The hydric hammock and mixed pardwood swamps are the predominant habitat types and have been somewhat altered through historic ditching and canalization. The effects of these activities will be assessed and possible restoration closely evaluated.

Preservation: The major focus will be the preservation of the important function of the wetlands on site as they filter water on its way to Lake Jesup. Impacts in these areas will be reduced or kept to a minimum.

Monitoring: By the continuous collection of data over a period of time we are able to assess land management practices, make adjustments where necessary and determine if resource goals are being attained.



TRAILS AND ACCESS



TRAILS

The 4.5 mile trail system at the Black Hammock Wilderness Area consists of one main loop trail blazed in red and several connecting trails which provide access for the local community. A boardwalk from the entrance on Howard Avenue provides an excellent look at the namesake hammocks so typical of this region and is ADA accessible. From there, the trails continue through pine flatwoods and sand pine scrub habitats. In an effort to protect the resources of this relatively small wilderness area, the trail system is limited to hikers, bikers and local equestrians (no trailer parking available). Boardwalks are intended for hikers and cyclist and not meant for equestrian use.





The Chuluota Wilderness Area has an array of natural communities such as Pond Pine Flatwoods, Sand Pine Scrub and Bay Swamps. Some of the more common natural communities and a sample of the plant and animal species that may be found include:

MESIC HAMMOCK

A mesic hammock community can be found in two locations, one at the south end of the pasture and the other along the southern property boundary west of the hardwood swamp. These areas cover approximately 32 acres and have a canopy dominated by laurel oak, southern magnolia (Magnolia grandiflora), and pignut hickory (Carya glabra). The subcanopy is fairly open with scattered saw palmetto, wild olive (Osmanthus americanus) and cabbage palm. Wildlife observed in this area includes barred owl, ground skink (Scincella lateralis) and nine-banded armadillo.

SAND PINE SCRUB

A Sand Pine Scrub community comprises approximately 160 acres of the Chuluota Wilderness Area. This is an important, large ecological community located mostly in the western portion of the property on well drained, sandy soils. The canopy is composed mainly of sand pine (Pinus clausa), the subcanopy of chapman oak, myrtle oak and sand live oak (Quercus geminata). Wildlife species which frequent this habitat include southern fence lizard (Sceloporus undulatus), gopher tortoise and bobwhite quail.







Prickly Pear Cactus

Pond Pine Flatwoods

BAY SWAMP

Bay swamp covers approximately 46 acres of this site with the majority occurring in the southeast portion. The canopy of this community includes sweet bay magnolia (Magnolia virginiana), pond pine, red maple and black gum (Nyssa sylvatica). The ground is covered by a variety of ferns such as royal and cinnamon, and other species such as lizards tail (Saururus cernuus). Wildlife observed in this community would include peninsula ribbon snake, yellow-billed cuckoo and cotton mouse (Peromyscus gossypinus).

POND PINE FLATWOODS

This is the largest vegetative community located on the Chuluota wilderness area, covering about 162 acres in the northeast and east portions of the site. The canopy is dominated by pond pine (Pinus serotina) and includes slash pine and cabbage palm (sabal palmetto). This community exist primarily on wet, mucky, fine sands that are high in organics and experiences seasonal flooding. Wildlife observed in this habitat includes white-tailed deer (Odocoileus virginianus), wild hog (an exotic) and wild turkey.

FRESHWATER MARSH

Two isolated marshes occur in the central portion of this site totaling about 3 acres. These depressional marshes are seasonally inundated by rains and high ground water. They serve as important breeding grounds for several species of amphibians such as the gopher frog (Rana areolata aesopus) and the barking treefrog (Hyla gratiosa), as well as being favorite feeding grounds for deer and wading birds.





HIKING





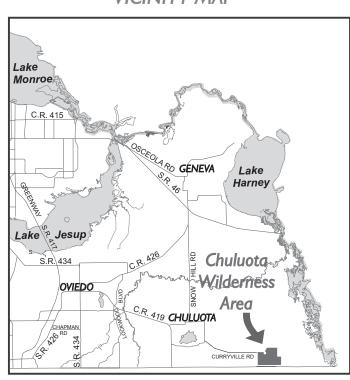


The 625 acre Chuluota Wilderness Area lies in the southeast corner of Seminole County just east of the town of Chuluota. You can find it by taking C.R. 419 south/east to Lake Mills Rd and turn east, to Curryville Road, bear right and follow to the entrance on the south side.

The site's remote location and variety of habitats make it an excellent destination for birdwatching, wildlife study and nature photography. In order to increase your chances of viewing wildlife, please remember to pack out all trash/waste, keep pets on a leash at all times and enjoy the natural surroundings quietly.

This site was purchased through the Seminole County Natural Lands Program which was put in place in 1990 by the Citizens and Board of County Commissioners through recognition of the role conservation and natural resources play in promoting and protecting a quality community.

VICINITY MAP



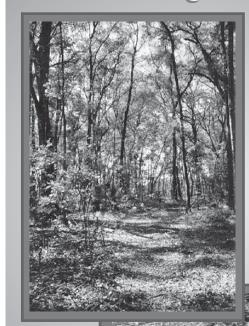
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Or visit the Seminole County web site at: www.seminolecountyfl.gov/natland Published February 1997

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CHULUOTA WILDERNESS **AREA** Management Plan

The Chuluota Wilderness Area is a 625 acre natural area located in the southeast corner of Seminole County. It contains a variety of natural systems such as mesic hammock, pond pine flatwoods, hardwood swamp and some rare habitats such as sand pine scrub. These in turn provide food and shelter for an equally diverse population of wildlife which includes white-tailed deer, gopher tortoise, sherman's fox squirrel and the eastern diamond-back rattle snake.

MANAGEMENT OBJECTIVES

Resource Management: As with all Seminole County natural lands the primary management objective is to preserve and/or restore the natural, ecological functions of the land while providing a passive resource based recreational experience for the citizens. To accomplish our objectives several methodologies will be employed.

Prescribed fire: Many of the communities on this site will require prescribed burns to restore and maintain their diversity. These burns also reduce fuel loads and the chance of damaging wildfires.

Restoration: Restoration of this site will include control of exotic species such as air yam and tropical soda apple, pasture restoration through replantings and filling of ditches and subgrade trails to restore hydrology.

Preservation: Of particular interest on this property is the large tract of xeric, scrub habitats and isolated ephemeral ponds, both important ecological habitats. These sensitive areas will be monitored closely and impacts kept to a minimum.

Monitoring: By the continuous collection of data over a period of time we are able to assess land management practices and make adjustments where necessary; determining if resource goals are being attained.

Resource Based Recreation: Hiking, Mountain Biking, Horseback Riding and Wildlife Watching

NATURAL RESOURCES AND TRAIL MAP





XERIC OAK SCRUB

This community exists on well drained, fine, sands (Pomello) and covers approximately 85 acres on the west side of the property. The dominant tree species include several xeric oaks, such as sand live, myrtle and chapman oaks (Quercus chapmani), with a scattered canopy of sand and longleaf pines. Wildlife likely to occur in this scrubby habitat include the peninsula mole skink, eastern cottontail rabbit (Sylvilagus floridanus) and towhee finch.

TRAILS

Entrance

The trail system at Chuluota Wilderness Area consists of two main loop trails. The west loop is marked with red blazes, the east loop with yellow blazes, and unmarked trails that can be used as short cuts or additional areas for exploration. The west loop located closest to the entrance traverses high xeric habitats such as sand pine scrub and is approximately 2.6 miles round-trip. The east loop takes you through mesic, pond pine flatwoods, mixed hardwood swamps and along the east boundary of the property. The east loop is approximately 2.7 miles long and is often flooded during the rainy season.

Pond Pine

Flatwoods

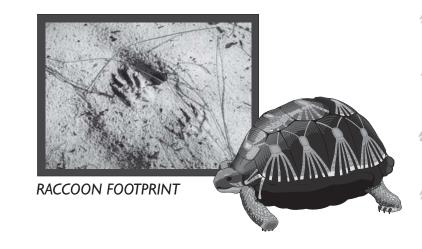
Hardwood Swamp







This site as all other Natural Lands sites will serve as an outdoor classroom for students of all levels. Through Natural Lands field trips students will be enlisted to collect data, monitor vegetation, conduct wildlife counts and perform other tasks to aide management staff in the process of land stewardship.





FRESHWATER MARSH

FLORIDA TRAIL

In the future, the Chuluota Wilderness Area will host a section of the Florida Trail as it meanders from east Orange County through Chuluota and

up to the Little Big Econ State Forest. Seminole County received a \$50,000 grant from the Land and Water Conservation Fund administered by the National Park Service to aid in the development of this site and the Florida Trail connection.



LEGEND:

AUXILLARY _ _ _

NORTH

ENTRANCE

TRAILS =

TRAILS



MESIC HAMMOCK

The Econ River Wilderness Area has an array of natural communities such as Pine Flatwoods, Oak Hammock and River Swamps. Some of the more common natural communities and a sample of the plant and animal species that may be found include:

PINE FLATWOODS

This habitat is characterized by its tall slash (Pirus elliottii) and longleaf pines, and an understory dominated by saw palmetto. Other trees present include scrub oaks such as myrtle and chapman, and shrubs such as shiny lyonia and wild blue berry. The ground cover may include wire grass, golden aster and runner oak. All these provide food and shelter for wildlife such as the hispid cotton rat (Sigmodon hispidus) and red-tailed hawk. This habitat occurs in three locations on site; the west end near the entrance, and in the north and south central area east of the bayhead.

SANDHILL OR LONGLEAF PINE/TURKEY OAK

This habitat is distinguished by the dominant, but open canopy of longleaf pines (Pinus palustris) and scattered turkey oaks (Quercus laevis), and a ground cover dominated by wire grass. Other vegetation often present includes gopher apple, deer berry, and prickley pear cactus. Frequent fires maintain the open understory of this plant community, however, the sandhill on this site has been fire supressed for many years, evidenced by the increased number of hardwoods. Reintroduction of fire to this habitat will improve its value to resident wildlife, such as the gopher tortoise, florida pine snake (Pituophis melanoleucas mugitus) and sherman's fox squirrel.



BAYHEAD SWAMP

A large example of this plant association, dominated by a variety of bay trees, lies at the center of this site, stretching from the north boundary southeast to the southern property line where it has been cleared for a power line easement. Sweet bay (Magnolia virginiana), loblolly bay and pond pines compose a canopy that provides shade for understory species such as wild azalea, button bush and wax myrtle. The ground is covered by a variety of ferns, such as cinnamon and royal fern and other species like lizard's tail. Wildlife observed in this habitat includes the cotton mouse (Peromyscus gossypinus), florida box turtle and eastern garter snake.

OAK HAMMOCK

Prolonged absence of fire, be it natural or man induced, will result in the dominance and eventual canopy closure of the long, lived hardwoods. A good example of this habitat exists at the east end of the property where large live oaks and sand live oaks form a solid canopy over a very sparse understory. Shade tolerant plants such as deer berry, beauty berry and cabbage palms are scattered throughout the understory. This habitat while less diverse, is still important and often frequented by wildlife that take advantage of the annual acorn mast.

RIVER SWAMP

Along the Econ river at the northeast end of the property is the best place to observe this plant community. Bald cypress, black gum (Nyssa sylvatica) and red maple trees form a dense canopy that creates a shaded, cool microclimate for a diverse assemblage of wildlife. Among the ground cover of ferns and rotting logs you could expect to see slimy salamanders and southeastern five-lined skinks, while from the canopy you might be greeted by the call of a barred owl. The plants and animals that inhabit this area must adapt to the rising waters of the ever as it overflows its banks during the wet season. A good indicator of the extent of the rising waters can be found on the trunks of the trees as water stains and lichen lines.



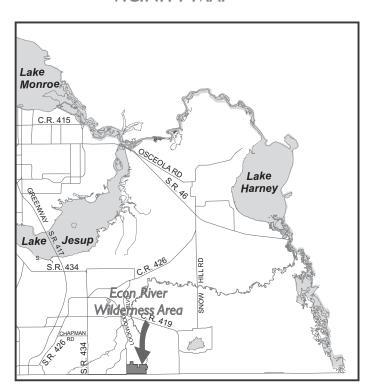
PHOTOGRAPHY

The 240 acre Econ River Wilderness Area lies on the Seminole County line southeast of the City of Oviedo, on the west side of the Econ River. You can find it by taking SR 434 (Alafaya Tr.) to McCulloch Rd. and turn east, follow to Old Lockwood Rd. and turn left (north) and proceed to the entrance on the right (east) side of the road.

This site's close proximity to urban areas is sure to make it a popular destination for those seeking to photograph wildlife, bird watch or just take a quiet walk through the woods. Please remember that all plants and animals are protected and to increase your chances of seeing them please be quiet, keep all pets on a leash and pack out any trash/waste you bring in.

This site was purchased through the Seminole County Natural Lands Program which was put in place in 1990 by the Citizens and Board of County Commissioners through recognition of the role conservation and natural resources play in promoting and protecting a quality community.

VICINITY MAP



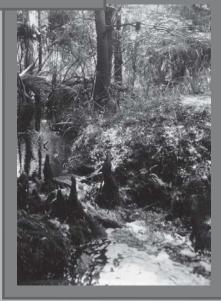
For More Information Contact: Seminole County Natural Lands (407) 349-3048

Or visit the Seminole County web site at: www.seminolecountyfl.gov/natland Published December 1997

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Econ River Wilderness Area

ECON RIVER WILDERNESS AREA Management Plan

The Econ River Wilderness Area is a 240 acre wooded site located on the Seminole/Orange County line south of the city of Oviedo, on the west side of the Econlockhatchee River. A walk on the approximately 3 miles of trails will take you through habitats such as pine flatwoods, sandhill and river swamp. Wildlife observed on this site includes the great horned owl, white-tailed deer and golden mouse. Benches are provided at a bend in the river so you can rest and enjoy the quiet, serenity of this little piece of natural Florida.

MANAGEMENT OBJECTIVES

Resource Management: As with all Seminole County natural lands the primary management objective is to preserve and/or restore the natural, ecological functions of the land while providing a passive resource based recreational experience for the citizens. To accomplish our objectives several methodologies will be employed.

Prescribed fire: Many of the communities on this site will require prescribed burns to restore and maintain their diversity. These burns also reduce fuel loads and the chance of damaging wildfires.

Restoration: Restoration on this site will focus on the reintroduction of fire to resurrect the flatwoods and sandhill habitats, inturn improving wildlife habitat. Attention will also be given to the bayhead to assure historic hydrology is not altered.

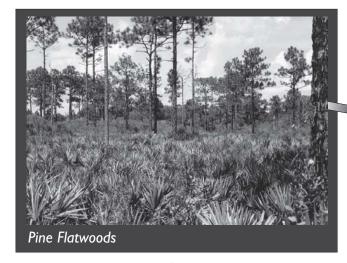
Preservation: The sandhill habitat is one of the least common habitats throughout the state and will be a focus of preservation on this site. Through the use of fire and continued monitoring this small patch of sandhill will be improved and maintained benefiting wildlife such as the gopher tortoise and sherman's fox squirrel, both listed species.

Monitoring: By the continuous collection of data over a period of time we are able to assess land management practices and make adjustments where necessary; determining if resource goals are being attained.

Resource Based Recreation: Hiking, Local Horseback Riding (No trailer parking available), Biking and Wildlife Watching NATURAL RESOURCES AND TRAIL MAP



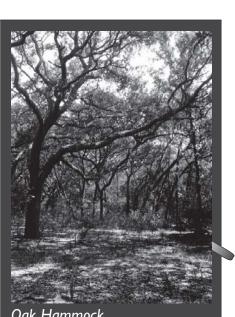




EDUCATION

The proximity of this site to the University of Central Florida, future Seminole Community College East Campus and a future high school, provides an excellent outdoor classroom for these students. Through the Green Seminole Project these students will have the opportunity to participate in the hands on management of this wilderness area.





TRAILS

The trail system at the Econ River Wilderness area consist of one main loop trail, blazed in red and is a total of approximately 2.7 miles of trail. The red trail will take you through flatwoods, sandhill and beautiful oak hammocks and offer a few scenic looks at the Econ river. In an effort to protect the resources of this relatively small wilderness area, the trail system is limited to hikers and local ride in equestrians.













The Geneva Wilderness Area has an array of natural communities such as Flatwood Ponds, Sand Pine Scrub and Bayhead Swamps. Some of the more common natural communities and a sample of the plant and animal species that may be found in the sample of the plant and animal species that may be found in the sample of the plant and animal species that may be found in the sample of the plant and animal species that may be found in the sample of the plant and animal species that may be found in the sample of the sample of the plant and animal species that may be found in the sample of the sample of the plant and animal species that may be found in the sample of the sample of the sample of the sample of the plant and sample of the s

Live Oak Hammock: As often happens near old homesteads, the oaks were spared from natural fire and have grown to considerable size. The understory thrives with Boston Fern, Native Beauty Berry and Laurel Cherry. Two exotics which are not desired are the Ear Tree (Enterolobium sp.) and Camphor Tree. Cardinals, Green Anoles and Grey Squirrels frequent the area.

Mesic Hammock: Laurel Oaks, Southern Magnolia (Magnolia grandiflora) and Sweet Gum shade this area while the understory features Cabbage Palm, Beauty Berry, Braken Fern and Virginia Creeper (Parthenocissus quinquefolia). Wildlife to be observed include Armadillo, Southeastern Five-lined Skink and Black-throated Blue Warbler.





Mixed Pond Pine / Bay Swamp: Loblolly bays (Gordonia lasianthus) and Pond Pines complete the canopy of the wetlands on the property's east side. Netted Chain and Cinnamon Fern are common ground cover. Wildlife likely to occur in this habitat include Slimy Salamander (Plethedon grobmani), Pinewoods Treefrog and Cotton Mouse.





Flatwoods Pond: A shallow pond is located at the center of the site, with water levels that fluctuate drastically from year to year. The edge contains Slash Pine, Dahoon Holly and several bay species as well as Button Bush, Yellow-eyed Grass and Sundew plants. Wildlife foraging among the water lillies may include Anhinga, Florida Water Snake and Sandhill Crane (Grus canadensis).

RECREATIONAL OPPORTUNITIES:



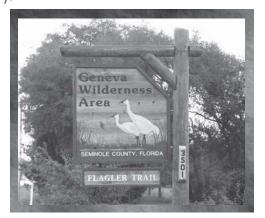






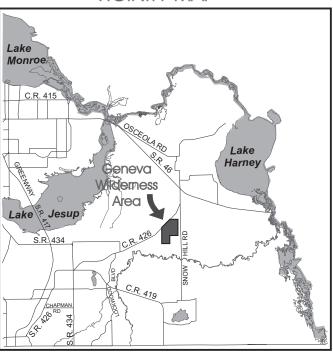


The Geneva Wilderness Area is a 180 acre site that lies to the south of the Geneva community on C.R. 426 in East Seminole County.



This site was purchased through the Seminole County Natural Lands Program established in November 1990. This site and other Seminole County Natural Land sites are possible only because of the Citizens' and Board of County Commissioner's recognition of the role conservation and natural resources play in promoting and protecting a quality community.

VICINITY MAP



For More Information Contact: Seminole County Natural Lands (407) 349-3048

Or visit the Seminole County web site at: www.seminolecountyfl.gov/natland Published April 2001



Natural Lands Program







Geneva Wilderness Area

Ed Yarborough
Nature Center

GENEVA WILDERNESS AREA

Management Plan

The Geneva Wilderness Area has a diverse array of native plant communities and wildlife. Primary management goals include preserving the natural and scenic qualities that exist today, while meeting the citizens' desire for a passive resource based recreation experience.

MANAGEMENT OBJECTIVES Resource Management

Promote and enhance habitat diversity through a variety of techniques:

Prescribed Burning: Reduces fuel loads and is needed to maintain the existing natural community. Many of Florida's plant communities depend on fire to maintain diversity by opening the canopy and promoting seed germination.

Restoration: Native plantings, prescribed burns and succession could aid in the restoration of certain areas of the Geneva site, such as the pasture region, that has been altered over time. Exotic species occur on portions of this site and will be controlled as needed.

Preservation: Sensitive areas such as wetlands and nesting areas, will be isolated from human impact to ensure adequate protection.

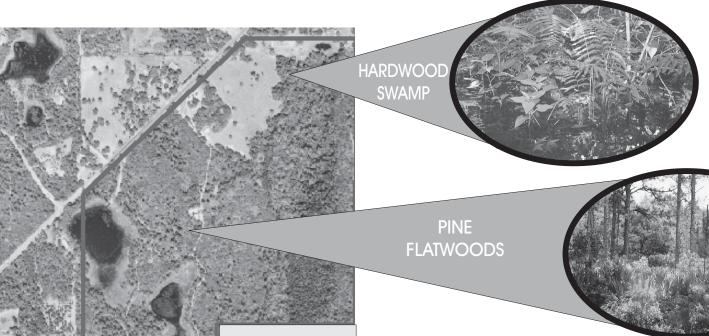
Monitoring: Understanding a site's natural functions is perhaps the most critical aspect of identifying impacts and determining if resource goals are being attained.

Resource Based Recreation:

- Hiking Fishing Mountain Bikina
- Camping*
- Equestrian
- Wildlife Watching
- * Weekend camping from Friday at Noon to Sunday at Noon.

Education: The Ed Yarborough Nature **Center** was established with the mission to learn about nature by experiencing it. This center is located on Seminole County's 180 acre Geneva Wilderness Area and features exhibits, displays and special programs that highlight the diverse ecology of Central Florida. View living

NATURAL RESOURCES



lant Communities Present

Mixed Hardwood Swamp

Pond Pine/Bay Swamp

Live Oak Hammock

Mesic Hammock

Sand Pine Scrub

Xeric Oak Scrub

Pine Flatwoods Flatwoods Pond

Pasture



Mixed Hardwood Swamp: Large Red Maples (Acer rubrum) and Black Gum tower above an occasional Sweet Bay to form the Canopy in this area. The ground is covered with species such as Lizard's Tail, Royal Fern and Green Arum. Raccoon (Procyon lotor), Eastern Garter Snake and Slimy Salamander have been observed here.

Pine Flatwoods: Slash and Longleaf pines (Pinus palustris) dominate this community with an understory of Saw Palmetto, Gallberry, Shiny Lyonia (Lyonia lucida) and small oaks. Ground cover is a variety of plants such as Vanilla Plant (Carphephorus odoratissimus), Wire Grass and Shiny Blueberry. White-tailed deer, Ground Skink and Black Racer are common inhabitants.

RECREATION AND **EDUCATION:**







ED YARBOROUGH

NATURE CENTER

Little Big Econ State Forest

terrariums of native habitats and some of the flora and fauna which inhabit them. Look through a microscope at the tiny unseen world of the pond at our Pond Life Station, or try your hand at some of the games and activities at the Wild Wonders Station. You can also join Nature Center staff on a guided hike through the wilderness area and learn more about how nature works. This facility hosts both school and public programs and is available by reservation for environmental-related meetings and activities.

LEGEND

Trail Head (Entrance at C.R. 426)

Seasonal Trail (Closed During Flooding)

Group Camp Sites (North and South)

Ed Yarborough Nature Center

♣♠ Restrooms

† Chapel

TO

Flagler Trail (Econ Forest Connection)

Onsite Caretaker Residence





The Lake Jesup Wilderness Area contains a mixture of predominately wetland communities such as wet prairie, shallow marsh and hydric hammock. These and other plant communities, as well as the wildlife that inhabits them include the following:

HYDRIC HAMMOCK

This is the most common forested community on site, dominated by a canopy of Cabbage Palm (Sabal palmetto) and Live Oak trees. Other tree species include Red Cedar, Laurel Oak (Quercus laurifolia) and the exotic Camphor tree which all provide shade and a cool retreat for species such as the Florida Box Turtle, Barred Owl (Strix varia) and Nine Banded Armadillo.

MIXED HARDWOOD SWAMP

Only small areas of this habitat exist on site and are generally dominated by canopy species such as Black Gum (Nyssa sylvatica), Red Maple and an occasional Bald Cypress. Other plant species such as Royal Fern and Button Bush (Cephalanthus occidentalis) can be found growing in the cool shade of the dense canopy. Wildlife likely to use this habitat include, the Florida Mud Snake, Green Tree Frog (Hyla cinerea) and Cotton Mouse.



CYPRESS SWAMP

This plant community exists at one location on the southern tip of the Lake Jesup Wilderness Area. Bald Cypress (Taxodium distichum) still dominate the canopy despite the historic logging of this area during the 1930s and 40s, evidenced by the many large stumps still present today. This habitat is a popular roosting site for many bird species including, Great Blue Heron (Ardea herodias), Double Crested Comorant and Black Vulture.

WET PRAIRIE

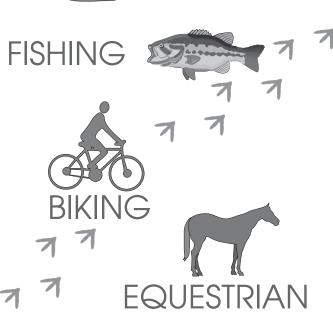
This habitat covers the largest area of the Lake Jesup Wilderness Area and was historically used for cattle grazing. Visitors can now admire native wildflowers such as Saltmarsh Mallow and Swamp Hibiscus (Hibiscus grandiflorus) scattered among clumps of Cord Grass and many herbaceous species. Marsh Rabbit, Eastern Meadowlark (Sturnella magna) and White Ibis are just a few of the many wildlife species commonly observed in this habitat.

SHALLOW MARSH

Along the edges of Lake Jesup and at occasional locations on the interior, plants such as Soft Rush, Blue Flag Iris (Iris hexagona) and Pickerel weed indicate areas where water stands for longer periods of time. These marshy areas are frequented by wading birds such as Little Blue Heron, Green Heron and Wood Stork (Mycteria americana), as they hunt for the many small fish and frogs that also congregate here.

RECREATIONAL OPPORTUNITIES:



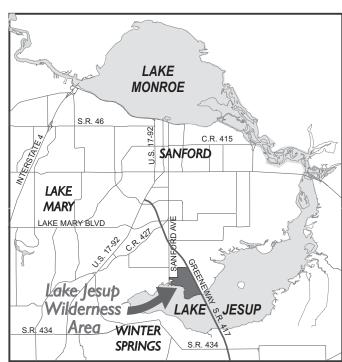


The 490 acre Lake Jesup Wilderness Area lies between Sanford Avenue and the Central Florida GreeneWay on the north shore of Lake Jesup. You can find it by taking I-4 to Lake Mary Blvd. turn right (east) and continue to Sanford Ave., turn right (south) again and follow to Lake Jesup Park.

This site's close proximity to urban areas is sure to make it a popular destination for those seeking to photograph wildlife, bird watch or just take a quiet walk through nature. Please remember that <u>all plants and animals are protected</u>, and to increase your chances of seeing them please be quiet, keep all pets on a leash and pack out any trash/waste you bring in.

This site was purchased through the Seminole County Natural Lands Program which was put in place in 1990 by the Citizens and Board of County Commissioners through recognition of the role conservation and natural resources play in promoting and protecting a quality community.

VICINITY MAP



For More Information Contact:
Seminole County Natural Lands
(407 349-3048
Or visit the Seminole County the steet at:

www.seminole.countyfl.gov/natland

Published December 1998

Natural Lands Program





Lake Jesup Wilderness Area

LAKE JESUP WILDERNESS AREA Management Plan

The Lake Jesup Wilderness Area is an approximately 490 acre site located on the north shore of Lake Jesup west of Hwy 417. The property was purchased through a joint effort with the St. Johns River Water Management District, towards the goal of preserving significant habitat to aid in the restoration of lake Jesup. Visitors can walk, ride their horse or mountain bike on the approximately 3 miles of trails to get a first hand look at the extensive flood plain of this lake and the countless species of wildlife that live there. The majority of the trails cross wet prairie and hydric hammock, where users might observe species such as the Anhinga, Bald Eagle, and the American Alligator. Benches, and interpretive graphics are provided along the way to enhance the visitor experience and provide insight to the restoration of this important Central Florida resource.

MANAGEMENT OBJECTIVES

Resource Management: As with all Seminole County natural lands the primary management objective is to preserve and/or restore the natural, ecological functions of the land while providing a passive resource based recreational experience for citizens. To accomplish our objectives several methodologies will be employed.

Habitat Management: Most of the habitats on this site where historically maintained by rising and falling water levels. Over the years berms, ditches and diversion of water along the St Johns River have altered the natural extremes and lead to changes in these plant communities. Many exotic species of plants such as Brazilian Pepper and Chinese Tallow have invaded and will be addressed with various methods of control. Prescribed fire and mowing of the wet prairie may be used to mimic the effect higher water levels would have in preventing the invasion of woody species such as Salt Myrtle (Baccharis halimifolia).

Restoration: Restoration on this site will focus on the function of the extensive floodplain of the lake. Through a partnership with the Seminole County Public Works Department this site will be used as a mitigation site for roadway projects within the Lake Jesup Basin. Manmade ditches will be filled in and dikes breached to enhance the natural function of the habitats on site.

Preservation: The preservation of this site will insure the effective function of the floodplain marshes and wet prairies and provide for a healthier lake for both wildlife and human use.

Monitoring: By the continuous collection of data over a period of time we are able to assess land management practices and make adjustments where necessary; determining if resource goals are being attained.

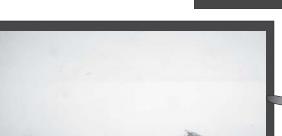
NATURAL RESOURCES AND TRAIL MAP

Resource Based Recreation:
Hiking, Equestrian, Fishing and Mountain Biking (when conditions permit)













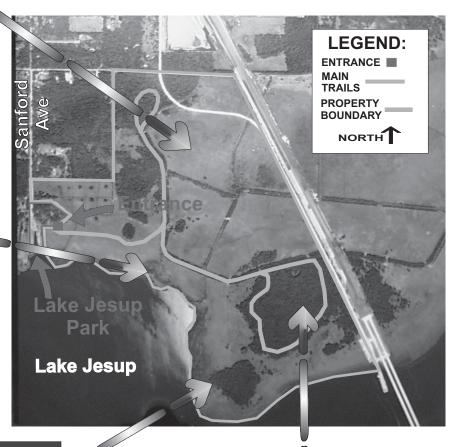
EDUCATION

As with other County Wilderness Areas this site will serve as an outdoor classroom for students of all levels. Topics such as hydrology, wetland ecology and water quality, are but a few of the many fields of applied science that can be interpreted through signage and special presentations to visiting students. Through the Green Seminole Project these students will have the opportunity to participate in the hands on management of this wilderness area.

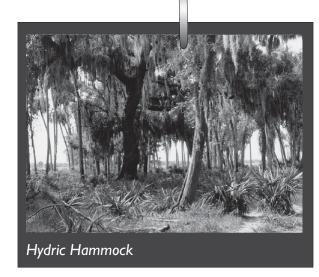


TRAILS

The trail system on the Lake Jesup Wilderness Area is approximately 2.5 miles long and consist of aT trail, with loop trails at the north and south ends. All of these trails are located in the flood plain and wetlands of Lake Jesup, and are therefore often flooded and only accessible during low waters levels. Due to the sensitive nature of the habitat and soils present these trails will be closely monitored and may require periodic closing to insure overuse and undue damage does not occur.









The Lake Proctor Wilderness Area has an array of natural communities such as Sand Pine Scrub, Pine Flatwoods, Sandhill or Longleaf Pine/Turkey Oak, Bayhead Swamp, Oak Hammock, and Mixed Hardwood Swamp. Some of the more common natural communities and a sample of the plant and animal species that may be found include:

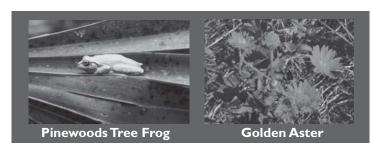
SAND PINE SCRUB

Often referred to as Florida's desert, this xeric (dry) habitat exists on sandy well-drained soils of relic dune lines deposited by ancient tides. Today this community is characterized by species such as Sand Pine (Pinus clausa), Sand live oak, Rusty Iyonia and Rosemary (Ceratiola ericoides). These plants and the wildlife as well, must adapt to a hot dry environment where water is scarce and rain soaks through the soil rapidly. The central portion of the Lake Proctor Wilderness Area, between the two transmission lines, is the best place to view this rare plant community.

Fire plays a key role in the regeneration of this plant community. Historically this habitat would only sustain fire every 30 to 60 years under extreme hot, dry and windy conditions. These very intense fires would burn the entire canopy and ground cover and restart the process of succession from the ground up. Many threatened and endangered species of wildlife such as the gopher tortoise, scrub jay (Aphelocoma coerulescens) and Fla. mouse (Podomys floridanus), adapted to these periodic setbacks and can't survive in the mature system that results from lack of fire. Restoration of the sand pine scrub on this site will improve the habitat value and may bring back some of these imperiled, endemic species.

PINE FLATWOODS

This habitat is characterized by its tall slash (Pinus elliottii) and longleaf pines, and an understory dominated by saw palmetto (Serenoa repens). Other trees present include scrub oaks such as myrtle and chapman, and shrubs such as shiny lyonia (Lyonia lucida) and wild blue berry. The ground cover may include wire grass (Aristida becherina), golden aster and runner oak. All these provide food and shelter for wildlife such as the hispid cotton rat (Sigmodon hispidus), red-tailed hawk and corn



MIXED HARDWOOD SWAMP

The extreme eastern end of the property is the best place to observe this plant community. Bald cypress, black gum (Nyssa sylvatica) and red maple trees form a dense canopy that creates a shaded, cool microclimate for a diverse assemblage of wildlife. Among the ground cover of ferns and rotting logs you might observe slimy salamanders (Plethodon glutinosus) and southeastern five-lined skinks, while from the canopy you might be greeted by the call of a barred owl. These swamps serve as important filters and flood storage areas for water making its way to Lake Harney.

SANDHILL OR LONGLEAF PINE/TURKEY OAK

An open canopy of longleaf pines (Pinus palustris) and scattered turkey oaks (Quercus laevis) distinguish this habitat, with a ground cover dominated by wire grass. Other vegetation often present includes gopher apple, deer berry (Vaccinium stamineum), and prickly pear cactus. Frequent fires play a key role in maintaining the open understory of this plant community. The sandhill on this site has been fire suppressed for many years, evidenced by the increased number of hardwoods and invading sand pines. Reintroduction of fire to this habitat will improve its value to resident wildlife, such as the gopher tortoise, florida pine snake (Pituophis melanoleucas mugitus) and sherman's fox squirrel.

BAYHEAD SWAMP

A large example of this plant community, dominated by a variety of bay trees, lies on the eastern side of this property. It stretches from north to south along the west and northeast side of the large transmission line. Sweet bay (Magnolia virginiana) Joblolly bay and pond pines compose a canopy that provides shade for understory species such as button bush and wax myrtle (Myrica cerifera). The ground is covered by a variety of ferns, such as cinnamon and netted chain fern and other species like lizard's tail. Wildlife observed in this habitat includes the cotton mouse (Peromyscus gossypinus), florida box turtle and eastern garter snake.

OAK HAMMOCK

Prolonged absence of fire, be it natural or man induced, will result in the dominance and eventual canopy closure of the long, lived hardwoods. Several examples of this habitat exist throughout the property, where large live oaks (Quercus virginiana) and sand live oaks form a solid canopy over very sparse groundcover. Shade tolerant plants such as deer berry, beauty berry and cabbage palms are scattered throughout the understory. This habitat while less diverse, is still important and often frequented by wildlife that take advantage of the annual acorn mast.

RECREATIONAL OPPORTUNITIES: FISHING PHOTOGRAPHY

LOCAL EQUESTRIANS

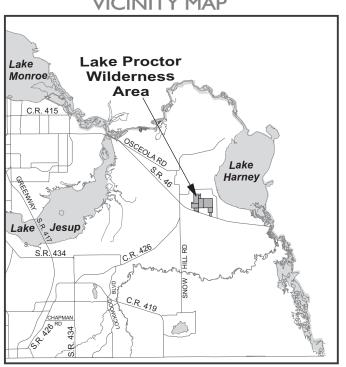
(No Trailer Parking Available)

The 475 acre Lake Proctor Wilderness Area is located on the east side of Seminole County, west of Lake Harney. You can find it by taking SR 46 east from Sanford and follow it to the entrance on the left (north) side of SR 46 approximately 1 mile east of the intersection with CR 426.

This sites' variety of habitats and beautiful trail system is sure to make it a popular destination for local equestrians, mountain bikers, hikers and other outdoor enthusiasts. Remember that all plants and animals are protected and to increase your chances of viewing them, please be quiet and keep pets on a leash. Be courteous to other users and pack out any trash/waste you bring in.

This site was purchased through the Seminole County Natural Lands Program which was put in place in 1990 by the Citizens and Board of County Commissioners through recognition of the role conservation and natural resources play in promoting and protecting a quality community.

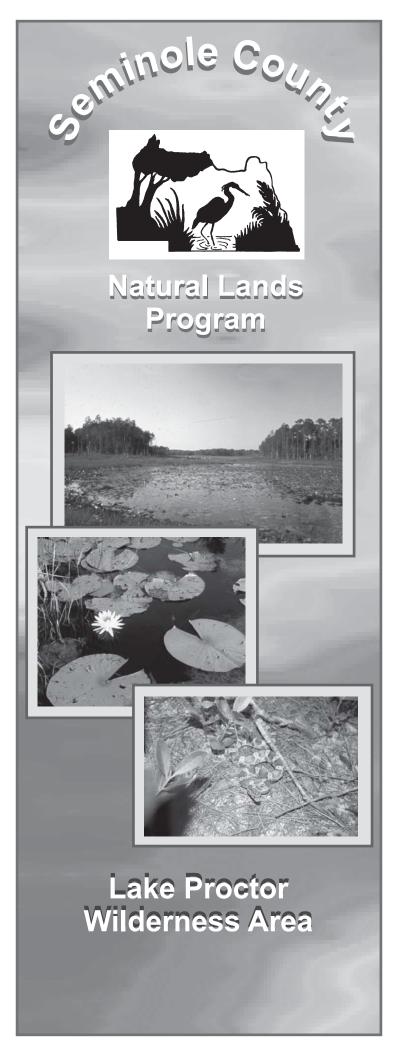
VICINITY MAP



For More Information Contact: Seminole County Natural Lands (407) 349-3048

Or visit the Seminole County web site at: www.seminolecountyfl.gov/natland

Published October 1999



LAKE PROCTOR WILDERNESS **AREA Management Plan**

The Lake Proctor Wilderness Area is a 475 acre wooded site located in east Seminole County near the Town of Geneva. A walk on the approximately 6 miles of trails will take you through habitats such sand pine scrub, pine flatwoods, sandhill and bayhead swamp. Wildlife observed on this site includes the wood duck, white-tailed deer, red fox and Florida worm lizard. Benches are provided at several locations so you can rest and enjoy the quiet, serenity of this little piece of natural Florida.

MANAGEMENT OBJECTIVES

Resource Management: As with all Seminole County natural lands the primary management objective is to preserve and/or restore the natural, ecological functions of the land while providing a passive resource based recreational experience for the citizens. To accomplish our objectives several methodologies will be employed.

PRESCRIBED FIRE: Many of the communities on this site will require prescribed burns to restore and maintain their diversity. These burns also reduce fuel loads and the chance of damaging

RESTORATION: Restoration on this site will focus on the reintroduction of fire to restore the flatwoods, sandhill and possibly the sand pine scrub habitats. The later may require other methods such as mechanical manipulation due to the intense nature of fire in this habitat and the close proximity of residential structures.

PRESERVATION: The sand pine scrub and sandhill habitat, are two of the most endangered habitats in the state of Florida and will be a focus of preservation on this site. Through the use of fire and continued monitoring these local samples of imperiled plant communities will be improved and maintained, benefiting wildlife such as the gopher tortoise and sherman's fox squirrel, both listed species.

MONITORING: By the continuous collection of data over a period of time we are able to assess land management practices and make adjustments where necessary; determining if resource goals are being attained. Of particular interest on this site are the isolated ephemeral ponds. These seasonally wet sinkholes located in the xeric, uplands, serve as important feeding, breeding and watering sites for many species of wildlife.

NATURAL RESOURCES AND TRAIL MAP

Resource Based Recreation: Hiking, Biking, Local Equestrians, Fishing and Photography









Lake Proctor

Eastbrook Wetland: This wetland was named in honor of the Eastbrook Elementary School, second grade class of 1996, for their commitment to The environment and contributions to the Natural Lands Program.

EDUCATION

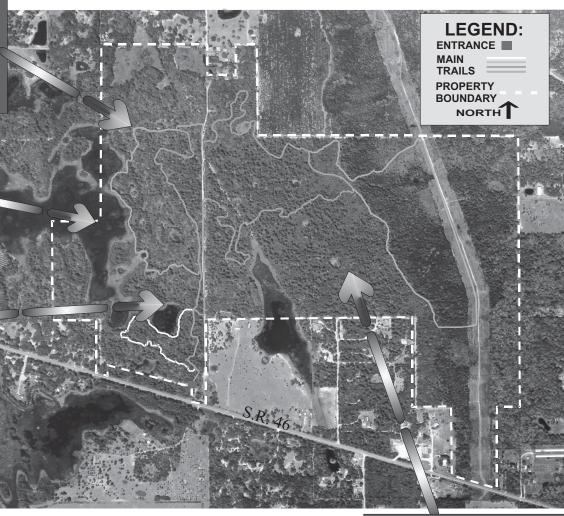
As with other County Wilderness Areas this site will serve as an outdoor classroom for students and public volunteers of all levels. Topics such as prescribed fire, wildlife management and water quality, are but a few of the many fields of applied science that can be interpreted through signage and special presentations to visiting students. Through the Green Seminole Project these students will have the opportunity to participate in the hands on management of this wilderness area.

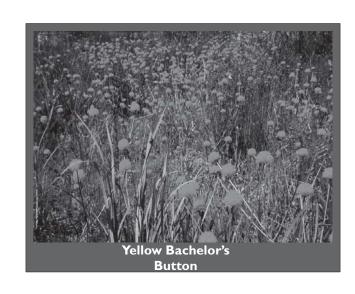




TRAILS

The trail system at the Lake Proctor Wilderness area consists of one main loop trail (2.6 miles) blazed in red, and three side trails blazed in blue (.6 miles), yellow (1.6 miles), andorange (.45 miles). These trails combined with other unmarked trails offer a total of approximately 6 miles to explore. These trails will take you through flatwoods, sandhill and beautiful oak hammocks, and offer a scenic look at Lake Proctor. In an effort to protect the resources of this relatively small wilderness area the trail system is limited to hikers, bikers and local equestrians.







The Black Bear Wilderness Area has an array of natural communities such as Hydric Hammock, Floodplain Swamp, Floodplain Marsh, and Mixed Hardwood Swamp. Some of the more common natural communities and a sample of the plant and animal species that may be found include:

HYDRIC HAMMOCK

This habitat is scattered throughout the property. Typical plants and animals found on site include cabbage palm, laurel oak, red cedar, wax myrtle, saw palmetto, royal fern, green anole, gray squirrel, raccoon, and a variety of warblers.

FLOODPLAIN SWAMP; CYPRESS DOMES AND STRANDS

These forested wetlands occur along the St. Johns River and are scattered throughout the property. Typical canopy species include bald cypress, swamp tupelo, red maple and sweetbay with a ground cover of lizard's tail, royal fern and dotted smartweed. Animals that may be observed in this type of plant community include redshouldered hawk, brown water snake, black bear, and raccoon.

FLOODPLAIN MARSH

A large portion of this property contains floodplain marsh,hosting plants such as maidencane, buttonbush, dotted smartweed, pickerelweed, American alligator, great blue heron, and snowy egret.



MIXED HARDWOOD SWAMP

Bald Cypress, Black Gum and Red Maple Trees form a dense canopy that creates a shaded, cool micro-climate for a diverse assemblage of wildlife. Among the ground cover of ferns and rotting logs you might observe Slimy Salamanders and Broad-head Skinks, while from the canopy you might be greeted by the call of a Redshouldered Hawk. This swamp serves as an important filter and flood storage area for waters of the St. Johns River.





PHOTOGRAPHY

The 1,600 acre Black Bear Wilderness Area lies in the Northwest area of Seminole County, on the south side of the St. Johns River. From I-4, take SR 46 W to Orange Boulevard. Turn right on Orange Boulevard heading North. Turn left at New York Avenue and follow until it ends at the parking area.

This site's close proximity to urban areas is sure to make it a popular destination for those seeking to photograph wildlife, bird watch or just take a quiet walk through the woods. Please remember that all plants and animals are protected and to increase your chances of seeing them please be quiet, keep all pets on a leash and pack out any trash/waste you bring in.

This site was purchased through the Seminole County Natural Lands Program which was put in place in 1990 by the Citizens and Board of County Commissioners through recognition of the role conservation and natural resources play in promoting and protecting a quality community.

VICINITY MAP



For More Information Contact: Seminole County Natural Lands (407) 349-3048

r visit the Seminole County web site at: www.seminolecountyfl.gov/natland Published July 2007

eminole Count



Natural Lands Program





Black Bear Wilderness Area

BLACK BEAR WILDERNESS AREA Management Plan

This site's approximately 1,600 acres in northwest Seminole County features a variety of wetland habitats within the floodplain of the St Johns River. Floodplain Marsh, Hydric Hammock and Cypress Swamps form a mosaic of habitat diversity which host wildlife such as the White-tailed deer, Swallow-tailed Kite and the Florida Black Bear. Its' large size and proximity to other public lands make this site an important piece in a puzzle connecting natural areas between the Wekiva / St. John's basins and the Ocala National Forest. This area's remote nature, views of the St. Johns River and diverse wildlife population promise to make it one of the Natural Lands program's flagship wilderness areas.

MANAGEMENT OBJECTIVES

Primary management goals include preserving the natural and scenic qualities that exist today, while meeting citizens' desires for a passive resource-based recreation experience.

Resource Management: Resource Management: As with all Seminole County Natural Lands the primary management objective is to preserve and/or restore the natural, ecological functions of the land while providing a passive resource based recreational experience for citizens. To accomplish our objectives several methodologies will be employed.

Prescribed Fire: Some of the communities on this site will require prescribed burns to restore and maintain their natural diversity. These burns also reduce fuel loads and the chance of damaging wildfires. Mechanical treatments may also be used to mimic the effect higher water levels and fire would have in preventing the invasion of woody species such as Salt Myrtle (Baccharis halimifolia).

Exotic Species: Many exotic (non-native) species of plants such as Air Potato and Elephant Ear (Colocasia esculenta) have become established and will be addressed with various methods of control.

Restoration: Restoration is used to enhance the habitat after a disturbance event. Restoration activities on this property may consist of removing exotic, invasive species and reintroduction of fire.

Habitat Management: A large portion of this site lies within the flood plain of the St. Johns River therefore the habitats present were historically maintained by rising and falling water levels as well as periodic fires. Over the years levees, ditches and diversions of water along the St. John's River have altered the natural extremes and lead to changes in these plant communities.

Monitoring: Monitoring land management activities is one objective of the Natural Lands Program. By periodically collecting data, the success of the land management activities can be assessed.

Resource Based Recreation:

Hiking, Local Equestrian, Biking and Wildlife Watching







Hydric Hammock

EDUCATION

As with other County Wilderness Areas this site serves as an outdoor classroom for students of all levels. Topics such as hydrology, wetland ecology and water quality, are but a few of the many fields of applied science that can be interpreted through signage and special presentations to visiting students. These students will have the opportunity to participate in the hands on management of this wilderness area and learn about its habitats.



TRAILS AND ACCESS

Much of the trail system on the Black Bear Wilderness Area has been established on historic levees and for the most part stays dry year round. This site is however, located within the floodplain of the St. Johns River and may experience significant flooding during the rainy season. From the parking area follow the blue blazes on an approximate 2 mile round trip to the St. Johns River and back. If you're quiet along the way, you may be fortunate enough to observe species such as the Great Blue Heron, River Otter and American Alligator. The trail does contain some slopes, wet areas and tree roots so please, watch your step.

